Dec. 29, 1931. H. P. SCHMECK 1,839,054

AMUSEMENT CAR

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Fig. 1.

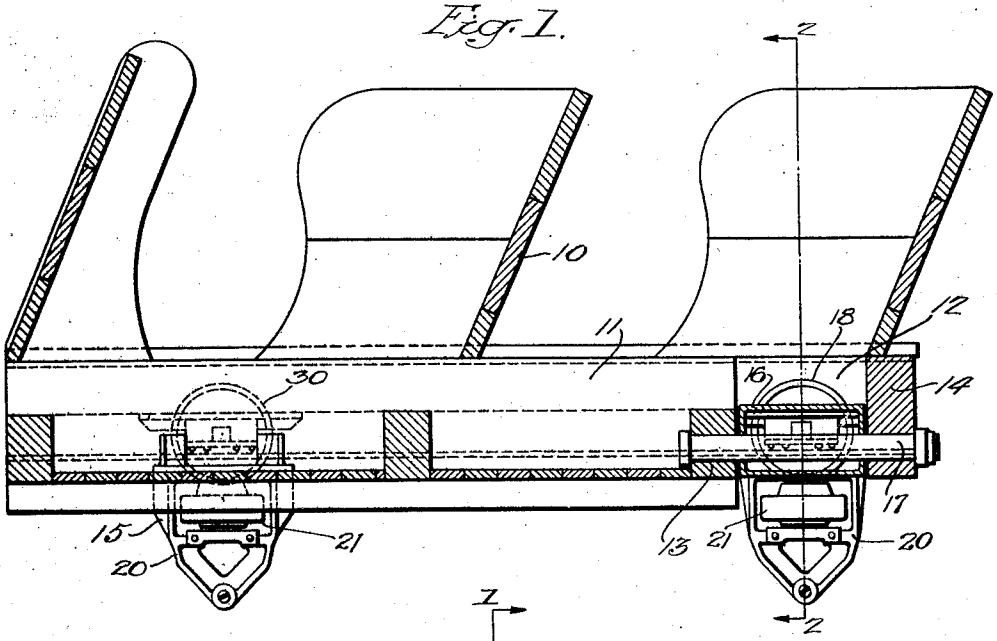
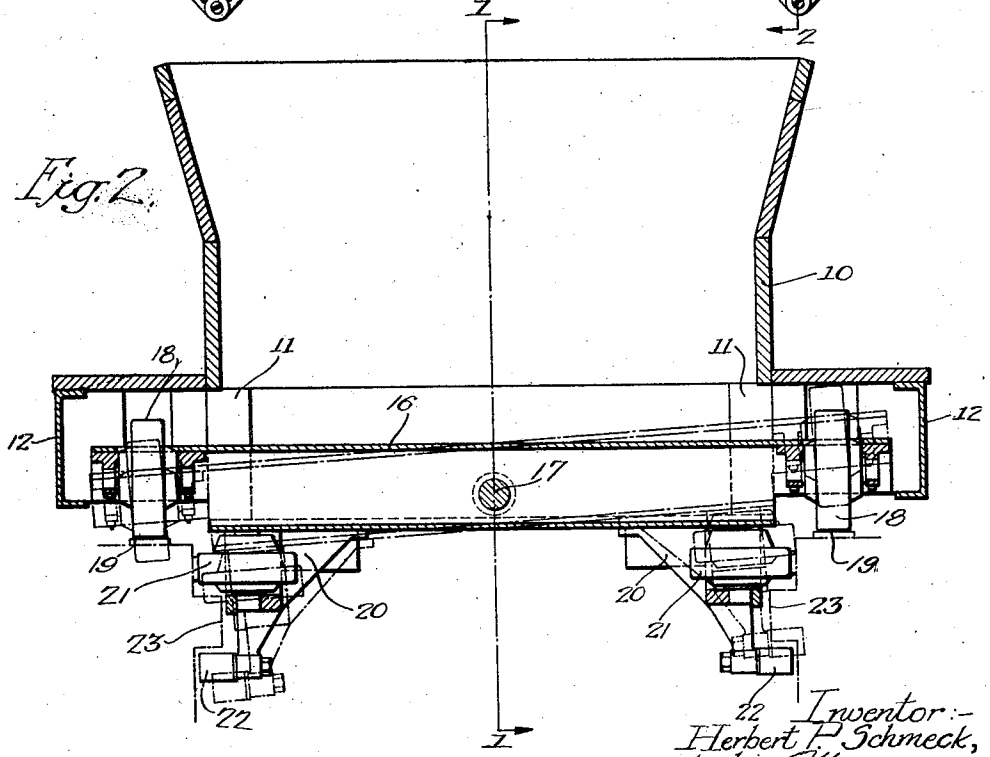


Fig. 2.



Inventor:-
Herbert P. Schmeck,
by his Attorneys,
Howson & Howson

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Fig. 3.

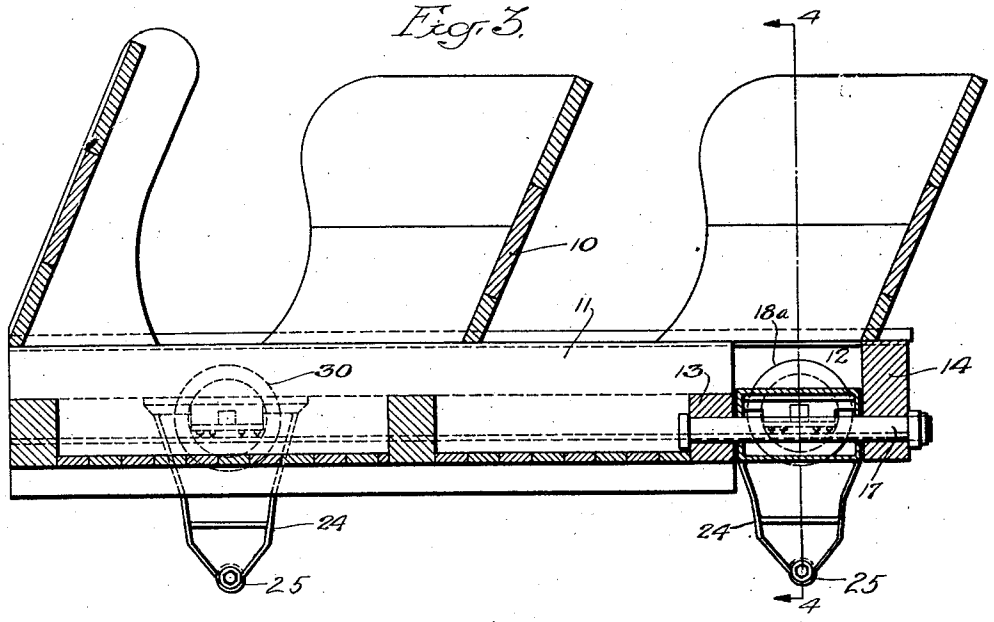
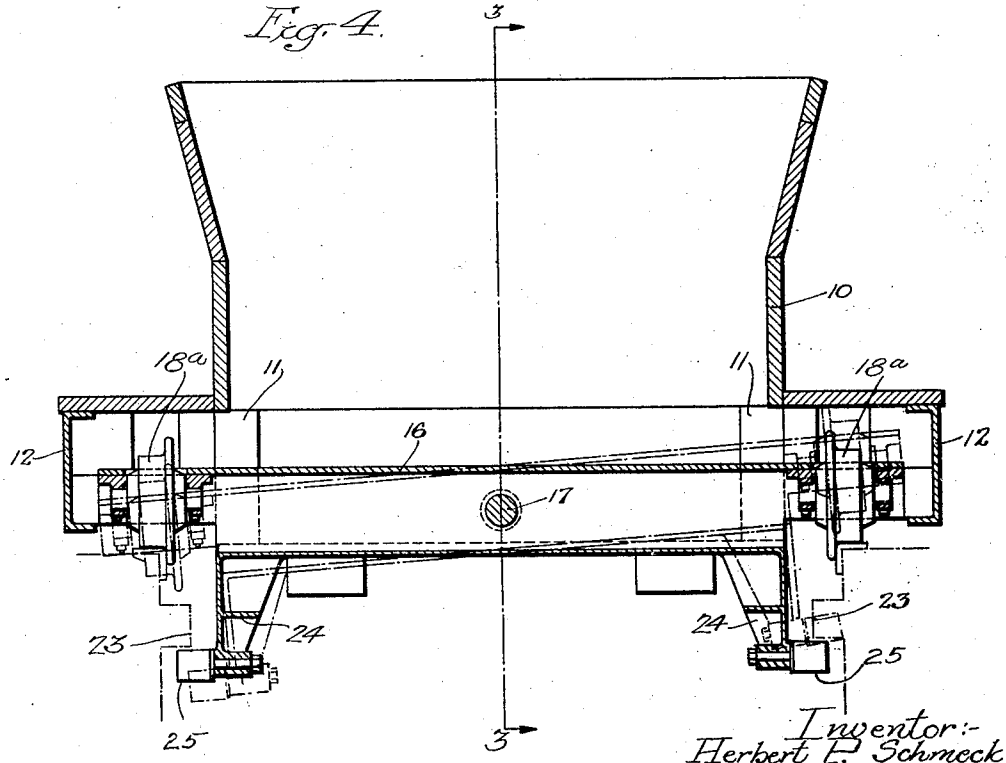


Fig. 4.



Inventor:-
Herbert P. Schmeck
by his Attorneys,
Howson & Howson

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AMUSEMENT CAR

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Fig. 5.

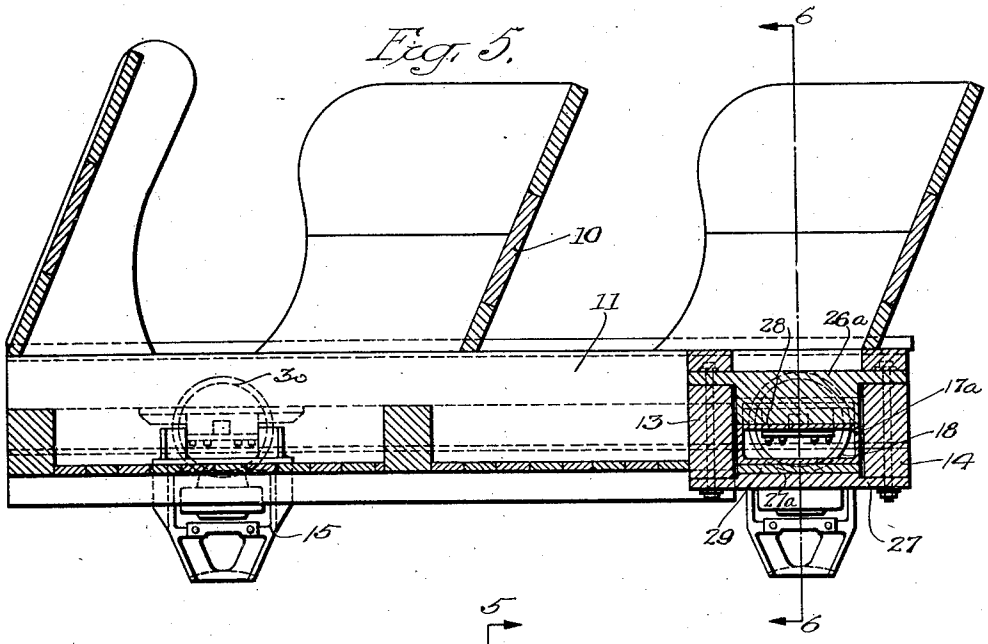
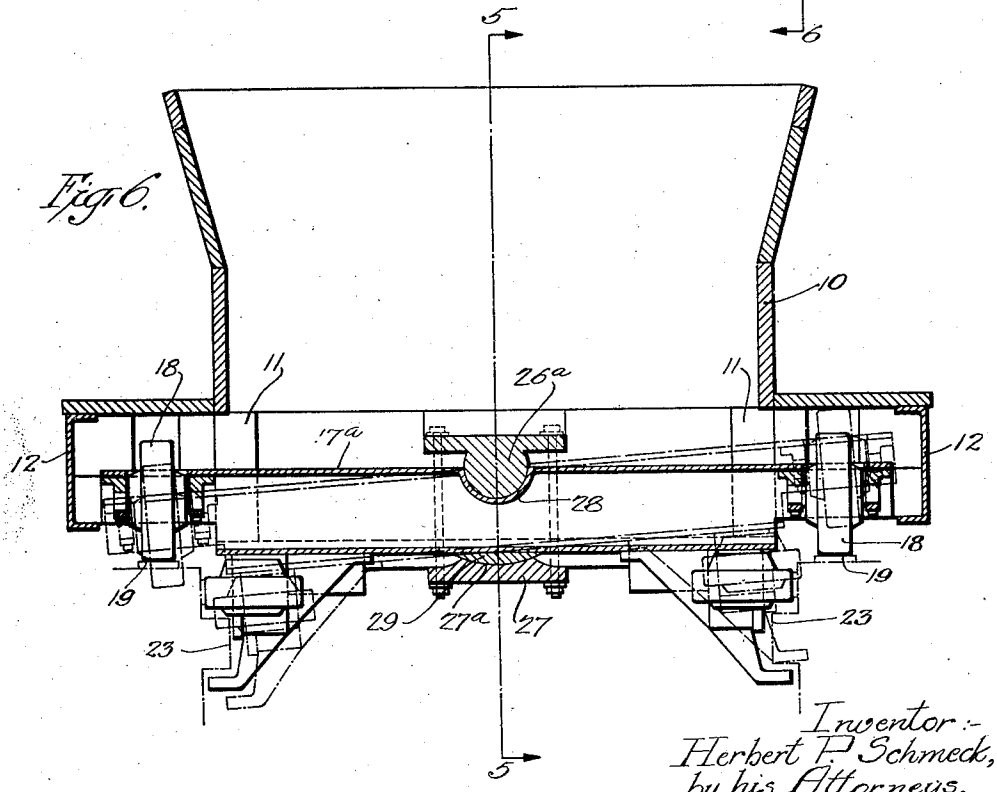


Fig 6.



Inventor:-
Herbert P. Schmeck,
by his Attorneys,
Howson & Howson

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AMUSEMENT CAR

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Fig. 7.

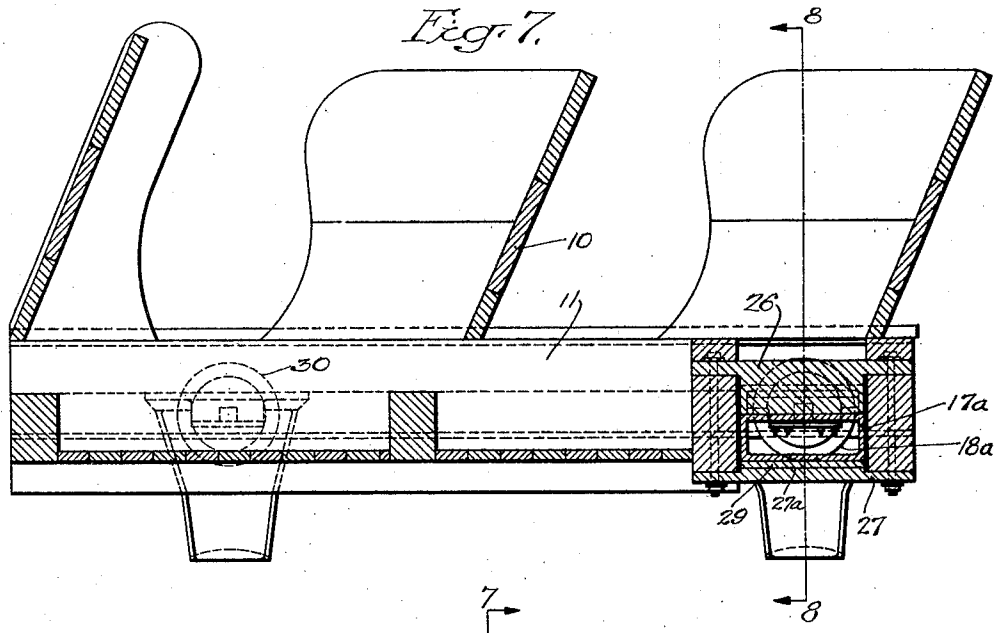
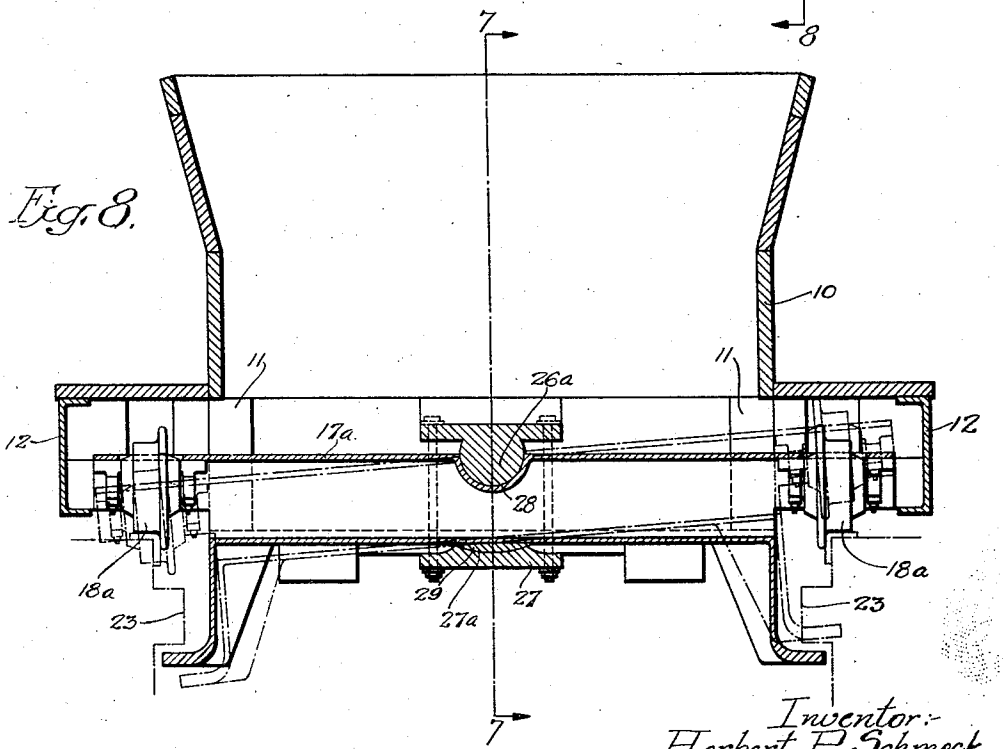


Fig. 8.



Inventor:-
Herbert P. Schmeck,
by his Attorneys,
Howson & Howson

Patented Dec. 29, 1931 1,839,054

UNITED STATES PATENT OFFICE

HERBERT P. SCHMECK, OF PHILADELPHIA, PENNSYLVANIA

AMUSEMENT CAR

Application filed May 16, 1930. Serial No. 452,966.

This invention relates to amusement cars and more particularly to cars for use in scenic railways, roller coasters and the like.

An important object of the invention is the provision of means for mounting the supporting wheels of such structures to prevent separation thereof from the tracks of the apparatus resulting from unevennesses in the track structure such as occur at banked portions thereof.

A further object of the invention is the provision of a structure of this character which may be readily incorporated in the ordinary amusement car structure without material modification thereof.

A still further object of the invention is the provision of a structure permitting at least two of the wheels of the car to oscillate with relation to the frame of the car, while at the same time insuring maintenance of said wheels in proper engagement with the track.

A further object of the invention is the production of an apparatus of this character which will be durable and efficient in service and a general improvement in the art.

These and other objects I attain by the structure shown in the accompanying drawings wherein, for the purpose of illustration, I have shown a preferred embodiment of my invention and wherein:

Fig. 1 is a longitudinal sectional view through an amusement car constructed in accordance with my invention, taken on line 1—1 of Fig. 2;

Fig. 2 is a section on line 2—2 of Fig. 1;

Fig. 3 is a section on line 3—3 of Fig. 4 illustrating a modified car structure;

Fig. 4 is a section on line 4—4 of Fig. 3;

Fig. 5 is a section on line 5—5 of Fig. 6 illustrating a further modification of the structure;

Fig. 6 is a section on line 6—6 of Fig. 5;

Fig. 7 is a section on line 7—7 of Fig. 8 illustrating a further modification of the invention; and

Fig. 8 is a section on line 8—8 of Fig. 7.

Referring now more particularly to the drawings, the numeral 10 generally designates the body of an amusement car, the frame of which includes longitudinally-extending inner and outer side members 11 and 12 arranged at each side of the vehicle, the outer side members 12 having the greater length and having the excess length projected rearwardly beyond the rear ends of the side members 11. The rear ends of side members 11 are connected by a transverse beam 13 while those of the side members 12 are connected by a beam 14 adjacent faces of these beams being spaced and providing a transversely-extending recess.

To the inner side beams 11, adjacent the forward ends thereof, wheel mounts 15 are rigidly secured and within the recesses at the rear of the car I pivotally mount a frame beam 16, the pivot 17 of which is disposed at the center of the car and which has its ends mounted in the stationary beams 13 and 14. Beam 16 is, in Figs. 1 and 2, disclosed as a hollow rectangular structure the upper and side walls being continued beyond the ends of the beam proper and affording a mounting for track wheels 18. These track wheels in either form of the invention are disclosed as engaging flatly upon the upper surface of tracks 19, and the under surface of the beam at the ends thereof has secured thereto castings 20 mounting wheels 21 to engage the inner faces of the track and prevent transverse displacement of the car, and rollers 22 to engage beneath a projection 23 formed on the inner surface of the track, and limit the extent through which the wheels may separate from the track. In Figs. 3 and 4 a similar beam structure is provided, but the ends of this beam have integral depending portions 24, the lower ends of which are out-turned as at 25 and provided with rollers to engage beneath the projections 23. The wheels 18—*a* employed in this form of the invention are the flanged type and engage both the upper surface and the inner face of the truck, thus eliminating the necessity for the wheels 21.

In the form of the invention shown in Figs. 5 and 6 the structure of Figs. 1 and 2 is modified by eliminating the pivot element 17 and mounting upon the upper surface of beams 11 and 12 a casting 26 the ends of which rest upon the beams and the central portion of which is transversely arcuately curved.

Against the lower surfaces of the beams a second casting 27 is secured in opposition to the casting 26, this casting having in its upper face between beams 13 and 14 a transversely-extending concave socket 27—*a* the curvature of which has the same center as the projection 26—*a* of casting 26. Beam 17—*a* at its center has a socket 28 receiving and fitting the projection 26—*a* and to its lower face has secured a wear plate 29 for co-action with the socket 27—*a*. In Figs. 7 and 8 the pivot structure of Figs. 5 and 6 is shown as applied to a structure similar to that of Figs. 3 and 4. This structure differentiates from that of Figs. 3 and 4 in that instead of employing a roller to engage beneath the hold-down projection 23 a rigid finger on the lower end of the bracket is employed for this purpose.

It will be obvious that when the car passes over a section of the track wherein the tracks are not disposed in a common plane, the supporting wheels 30 of the wheel mounts 15 will remain in engagement with the tracks due to the weight of the car, the pivoted beam at the rear of the car oscillating to permit the wheels 18 of this beam to remain in engagement with the tracks. Thus, any tendency of the wheels to separate from the tracks due to unevenness of the tracks is avoided. Jumping will, of course, be prevented by the portions 25 or rollers 22 coming into engagement with the projections 23.

A structure of this character produces a smoothly riding amusement car which is absolutely safe in operation and which at the same time may be very readily and cheaply manufactured.

As the construction is obviously capable of considerable modification, I do not wish to be understood as limiting myself thereto except as hereinafter claimed.

I claim:

In an amusement apparatus, a car embodying a rigid frame, a supporting track structure for the car, a pair of wheels fixed to the frame to engage said tracks, a beam pivoted to the frame intermediate its ends and having at its ends wheels to engage the tracks, means upon the opposite ends of the beam engaging the tracks for limiting transverse movement of the beam with relation to the tracks, and means at opposite ends of the beam for limiting separation of the last-named wheels from the tracks, the first and last-named wheels constituting the sole supporting means for said car.

HERBERT P. SCHMECK.